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FURTHER EXPANSION OF ELECTRONICS MANUFACTURING IN CHINA

(Telecommunications Combine in Peking)

A new telecommunications combine has recently been created in Peking consisting of two large plants, the Hua Pei Radio Equipment Factory and the Peking State Electron Tube Plant. It is estimated that when full production capacity of this new combine is reached, Communist China's dependence on foreign suppliers for electronic components and equipment will be greatly reduced. As a result the drain on total Bloc resources of electronic equipment also will be greatly reduced.

However, major difficulties in the combine's immediate production will delay the ultimate results as described above. These difficulties include the lack of domestic plants for processing specialized production materials and the lack of organization in high level research and development capability among Chinese electronics engineers.

If foreign technology and specialized production materials were imported the combine probably could reach full production levels by 1959. It may take an additional year or so beyond 1959 to reach full production, however, should the Chinese Communists choose to depend

entirely upon the results of their own research and development and  
upon their own processed raw materials.

The Hua Pei Radio Equipment Factory, described as Communist China's first modern and comprehensive radio equipment manufacturing plant went into production in Peking on 5 October 1957.<sup>1/</sup> The Peking Electron Tube Plant began operations on 15 October 1956.

The Hua Pei Plant, built with primary support from East Germany, will reportedly manufacture all types of parts and test equipment for telecommunications. It is equipped with the most advanced machinery for producing electronic components, including automatic high speed production equipment; it has departments for the production of special materials such as plastics and magnetic materials; and has a modern laboratory for research and development.<sup>2/</sup>

The Hua Pei and Peking Tube Plants apparently form one of the largest combines in the Sino-Soviet Bloc for the manufacture of both military and civilian radio-telecommunications equipment. It is estimated that the Peking Tube Plant will have a total production capacity in the order of 15 million tubes a year, as compared with an estimated production in the order of 30 million tubes annually for all European Satellites. The Communist Chinese have thus, in a few short years, constructed a combine capable of producing about one-half as much radio communications equipment as is presently produced in all

Recent Chinese press reports claim that when the combine goes into capacity production, China's present dependence on imported tubes and components will be eliminated, her present requirements for civilian telecommunications equipment will be met, and her immediate requirements for military electronic equipment will be partially met. In addition, according to these reports, China will be in a position to export tubes, components, and equipment. <sup>ly</sup>

Although Communist China has established the physical plant necessary to achieve the above aims, it is believed that several major difficulties must be overcome before capacity production can be accomplished.

The first of these difficulties is China's apparent lack of specialized production materials. No information is currently available to show that raw materials processing plants to produce these materials are yet in production -- or even established. In March 1957, Communist China agreed to order the specialized materials necessary for one year's production at the Bau Pei Plant from East Germany.

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The second major difficulty is China's almost complete lack of organized research and development capability in the field of electronics. A number of steps were taken by the Chinese to improve their capabilities

in 1957. Among these were the establishment of the Chinese Telecommunication Scientific Research Institute in Peking and the Postal Communications Research Institute in Shanghai. These institutes, as reported by Peking radio, were set up for the purpose of conducting research and development on components and equipment for Communist China's telecommunications system. A more significant step in this direction was taken in January 1956 when a five year Sino-Soviet agreement concerning "joint research in science and technology" was signed with the USSR. Under the terms of this agreement the USSR is committed to assist China to raise the level of its scientific work. It is believed that telecommunications is one of the priority fields specified in this agreement. 6

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